



THE CITY OF SAN DIEGO REPORT TO THE CITY COUNCIL

DATE ISSUED: May 24, 2006

REPORT NO: 06-062

ATTENTION: Council President and City Council

SUBJECT: Engineering and Capital Projects Department projects honored by the American Society of Civil Engineers (ASCE).

THIS IS AN INFORMATION ITEM ONLY. NO ACTION IS REQUIRED ON THE PART OF THE COUNCIL.

Founded in 1852, the ASCE represents more than 123,000 members of the civil engineering profession worldwide, and is America's oldest national engineering society. This year the City of San Diego's Engineering and Capital Projects Department was recognized by the San Diego Chapter of the American Society of Civil Engineers for their work on seven (7) local projects.

The projects are judged based on demonstrating excellent engineering skills and the project's contribution to civil engineering progress and mankind. In making their selections, the following criteria are given special weight: (A) contribution to the well-being of people and communities; (B) resourcefulness in planning and in the solution of design problems; (C) innovations in materials, technology and construction; and (D) the project's beneficial effects and mitigation measures used to reduce adverse impacts.

Chollas Valley Trunk Sewer Phase II Outstanding Civil Engineering Project

Located in the City Heights community this project consisted of the replacement of approximately 18,000 linear feet of 24-inch and 27-inch pipe, the installation of approximately 2,187 linear feet of 8-inch and 12-inch pipe, the rehabilitation of 7,519 linear feet of existing 15-inch and 18-inch pipe and the abandonment of 7,170 linear feet of pipe in the environmentally sensitive Chollas Creek. The project began in July, 2003 and was completed March, 2005.

The project required a great deal of coordination with the communities, the Sunshine Little League, Leisureland Mobile Home Park, the Park and Recreation Department, and outside agencies such as the Army Corps of Engineers, the California Department of Fish and Game, and the California Regional Water Quality Board.



Sliplining at the Sunshine Little League Ballfields

North Torrey Pines Road Bridge
Project
Award of Excellence

Located in the Torrey Pines Reserves State Park, the original bridge, spanning the Los Penasquitos Lagoon inlet, was built in 1935. Working with the community and resource agencies to explore different options, a design team came up with a haunched structure bridge that reduced the number of columns obstructing the mouth of the lagoon from 72 to 4, allowing for tidal flushing to occur naturally, without having to mechanically dredge the inlet. The design team also incorporated natural elements from the surrounding sandstone formation into the overall design and added ADA access ramps to the beach, a 7' wide sidewalk on the west side, two bike lanes, and two bus turnouts to accommodate the public transit system.



The Demolition of Sewer Pump Station No. 34
& Upgrade of Pump Station No. 5
Award of Excellence

Originally built in 1948, Sewer Pump Station Number 34 was demolished and replaced with a deep 15-inch sewer main to carry the flow via gravity to the nearby upgraded Sewer Pump Station Number 5. Using microtunneling technology, a 580 foot pipe was installed beneath the BNSF rail road tracks to connect the two stations, however during the tunneling process, the groundwater was found to be excessively contaminated which required that a complex water filtration system be installed.



Microtunneling in progress

Fire Station #31
Award of Merit

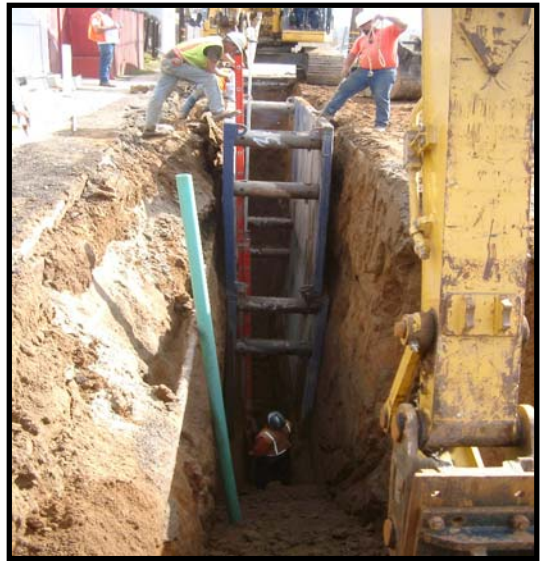
The new two story steel-framed structure is approximately 8,000 square feet and is situated on approximately 0.5 acres of land. One of the unique aspects of this project is the 430 foot long masonry retaining wall that surrounds the property which allowed the station to obtain the necessary parking required. Other key challenges during construction included the unprecedented amount of rain which created storm water and runoff concerns. To comply with storm water standards the design implemented filters in the storm drains and a water pollution control plan was implemented to prevent erosion of the existing soils and protect the surface water runoff.



Sewer Group 744 Design-Build Pilot Project
Award of Merit

The Sewer Group 744 project replaced approximately 2.6 miles of deteriorating and substandard sewer pipelines in the Barrio Logan neighborhood via the “Design-Build” project delivery method which separates this project from other pipeline projects typically delivered via the method of Design-Bid-Build. This project and its unique delivery method proved to be a success in meeting all of its objectives.

This project was also selected and presented at the Design/Build Institute of America national conference in Florida in 2005, providing valuable information to other agencies and entities throughout the country.



Trenching in the alley

Fashion Valley Road
Award of Merit

During the heavy rains of the winter of 2004-05, the Fashion Valley Road over the San Diego River failed due to the deterioration of six 60-inch corrugated metal pipes located underneath the roadway. These pipes were in excess of 35 years old and laid under a major access corridor to residential and commercial entities in the Fashion and Mission Valley area. The restoration of the road was critical to access for pedestrians, the transit station, and area businesses/visitors. The City obtained all required permits prior to construction and replaced the metal corrugated pipes with more durable reinforced concrete pipe. The project was completed and operational in late October 2005, before the holiday season and its associated shopping season.



Damaged Corrugated Metal Pipes



New reinforced concrete pipe installed under Fashion Valley Road

Fire Station #12
Honorable Mention

Located in the southeastern part of the City, the 11,330 square foot Fire Station #12 occupies a lot of only 22,780 square feet, and was designed with energy efficiency and sustainability in mind. Although the site is very small it manages to accommodate a rigorous program including four garage bays for engines and equipment. The position of the windows in the main staircase is atypical, yet their unique placement creates a rhythm that frames surprising views that shift with each step. The private courtyard serves as an interaction area. Design requirements included ensuring harmony with the planned Lincoln High School addition across the street and maintaining the scale of the surrounding area.



Respectfully submitted,

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Approved: R.F. Haas
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